

WHAT IS CLAIMED IS:

1. A reflective cholesteric liquid crystal (CLC) display device, comprising:
 - a first substrate;
 - an absorption layer on the first substrate;
 - a cholesteric liquid crystal (CLC) color filter on the absorption layer;
 - a first electrode on the cholesteric liquid crystal (CLC) color filter;
 - a second substrate spaced apart from the first substrate;
 - a second electrode on the rear surface of the second substrate;
 - a retardation layer on the front surface of the second substrate;
 - a polarizer on the retardation layer;
 - a holographic film on the polarizer, the holographic film reducing an angle of light incident to the polarizer; and
 - a liquid crystal layer between the first electrode and the second electrode.
2. The device according to claim 1, wherein the holographic film diffracts the incident light to have an incident angle of less than about 20 degrees.
3. The device according to claim 1, further comprising a diffusion film on the holographic film.
4. The device according to claim 1, wherein the second substrate includes a thin film transistor that applies a signal to the second electrode.
5. The device according to claim 1, wherein the first substrate includes a thin

film transistor that applies a signal to the first electrode.

6. The device according to claim 1, wherein the second substrate includes a transparent insulating material.
7. The device according to claim 1, wherein the first substrate includes a transparent material.
8. The device according to claim 1, wherein the first substrate includes an opaque material.
9. The device according to claim 1, wherein the first alignment layer includes a polymer.
10. The device according to claim 1, wherein the reflected light from the cholesteric liquid crystal color filter layer one of shows red, green, and blue in each pixel region.
11. The device according to claim 1, wherein the first electrode includes a transparent conductive material.
12. The device according to claim 1, wherein the second electrode includes a transparent conductive material.
13. A reflective cholesteric liquid crystal (CLC) display device, comprising:
 - a first substrate;
 - a second substrate;
 - an absorption layer formed on the first substrate;

a first alignment layer formed on the absorption layer;
a cholesteric liquid crystal color filter layer formed on the first alignment layer;
a first electrode formed on the cholesteric liquid crystal color filter layer;
a second alignment layer formed on the first electrode;
a second electrode formed on the second substrate;
a third alignment layer formed on the second electrode;
a liquid crystal layer interposed between the second alignment layer and the third alignment layer;
a retardation layer formed on the second substrate;
a polarizer formed on the retardation layer;
a holographic film disposed on the polarizer; and
a diffusion film formed on the holographic film.

14. The device according to claim 13, wherein the holographic film diffracts the incident light to have an incident angle of less than about 20 degrees.
15. The device according to claim 13, wherein the second substrate includes a thin film transistor that applies a signal to the second electrode.
16. The device according to claim 13, wherein the first substrate includes a thin film transistor that applies a signal to the first electrode.
17. The device according to claim 13, wherein the second substrate includes a transparent insulating material.

18. The device according to claim 13, wherein the first substrate includes a transparent material.
19. The device according to claim 13, wherein the first substrate includes an opaque material.
20. The device according to claim 13, wherein the first alignment layer includes a polymer.
21. The device according to claim 13, wherein the reflected light from the cholesteric liquid crystal color filter layer one of shows red, green, and blue in each pixel region.
22. The device according to claim 13, wherein the first electrode includes a transparent conductive material.
23. The device according to claim 13, wherein the second electrode includes a transparent conductive material.
24. A method of manufacturing a cholesteric liquid crystal (CLC) display device, comprising:
- forming a first substrate;
 - forming an absorption layer on the first substrate;
 - forming a cholesteric liquid crystal (CLC) color filter on the absorption layer;
 - forming a first electrode on the cholesteric liquid crystal (CLC) color filter;
 - forming a second substrate spaced apart from the first substrate;

forming a second electrode on the rear surface of the second substrate;
forming a retardation layer on the front surface of the second substrate;
forming a polarizer on the retardation layer;
forming a holographic film on the polarizer, the holographic film reducing an angle of light incident to the polarizer; and
forming a liquid crystal layer between the first electrode and the second electrode.

25. A method of manufacturing a reflective cholesteric liquid crystal (CLC)

display device, comprising:

forming a first substrate;
forming a second substrate;
forming an absorption layer on the first substrate;
forming a first alignment layer on the absorption layer;
forming a cholesteric liquid crystal color filter layer on the first alignment layer;
forming a first electrode on the cholesteric liquid crystal color filter layer;
forming a second alignment layer on the first electrode;
forming a second electrode on the second substrate;
forming a third alignment layer on the second electrode;
forming a liquid crystal layer interposed between the second alignment layer and the third alignment layer;
forming a retardation layer on the second substrate;

forming a polarizer on the retardation layer;
forming a holographic film disposed on the polarizer; and
forming a diffusion film on the holographic film.

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